

CLIL and Terminology – Moving Forward Towards a Dialogical Relation

Manuel Moreira Silva

Alexandra Albuquerque
ISCAP - Porto Polytechnic

Portugal



- Context – HEI network
 - CLIL Research project
- Relevance of terminology to CLIL
 - Why/how can terminology be of use?
- Terminology-based approach: TerminoCLIL
 - Implementation – Use of a Learning Activity Plan
- Some results



Association of Higher Education Language Centers in Portugal - RECLÉS.pt

Network

- Innovation and dissemination of best practices
- R&D projects in the area of applied foreign languages and in foreign language didactics for HE
- Focus on HE student and staff needs in the areas of foreign language learning for professional ends

Project

- CLIL: Parallel and comparative study in HEI

CLIL may stem from LSP practices, but goes beyond it: awareness that language changes according to its contexts of use, i.e. it has *specific communication purposes and uses domain specific language*.



A CLIL environment is flexible and there are **many different strategies, models and approaches** one can use depending on a range of contextual factors. (Do Coyle, 2005)

Whatever the approach, it is fundamental that the **CONTENT** of the topic, project, theme, syllabus leads the way.

Successful CLIL requires teachers to engage in alternative ways of planning their teaching for **effective learning**.

Our stance:

- The scope of CLIL is not clear-cut
- the discussion on its core features is getting increasingly more complex

But

- We (like Cenoz, J. et al. 2013) believe that ***“a critical, and ultimately the most important, direction for future research is to examine efficient ways to effectively integrate language and content instruction.”***

CLIL

It's an approach for learning content through an additional language (foreign or second), thus teaching both the **SUBJECT** and the **language**.

Terminology

Terminology is dedicated to the scientific study of concepts and terms used in **specialized languages** and to their **structuring** in specialized **knowledge representation systems**

Terminology is the link between the two dimensions of CLIL:

knowledge and competences (concepts and know-how) ↔ **language (discourse on the knowledge)**

The use of a terminological-based approach between these dimensions can result in non-ambiguous and more efficient communication about specialised knowledge

RELEVANCE OF TERMINOLOGY TO CLIL

1

Terminology provides a set of methodologies to promote and facilitate the access to and management of specialized knowledge

2

Terminology focuses on the collection, description, processing and systematic representation of concepts in a specialised domain.

3

Terminology is , in our view, a key construct in CLIL teaching, as it supports the search production, use and dissemination of information

4

In CLIL learning environments, with strong linguistic and extra-linguistic inputs, **terms** will be one of the most important means to access and acquire both knowledge and communicative competences

5

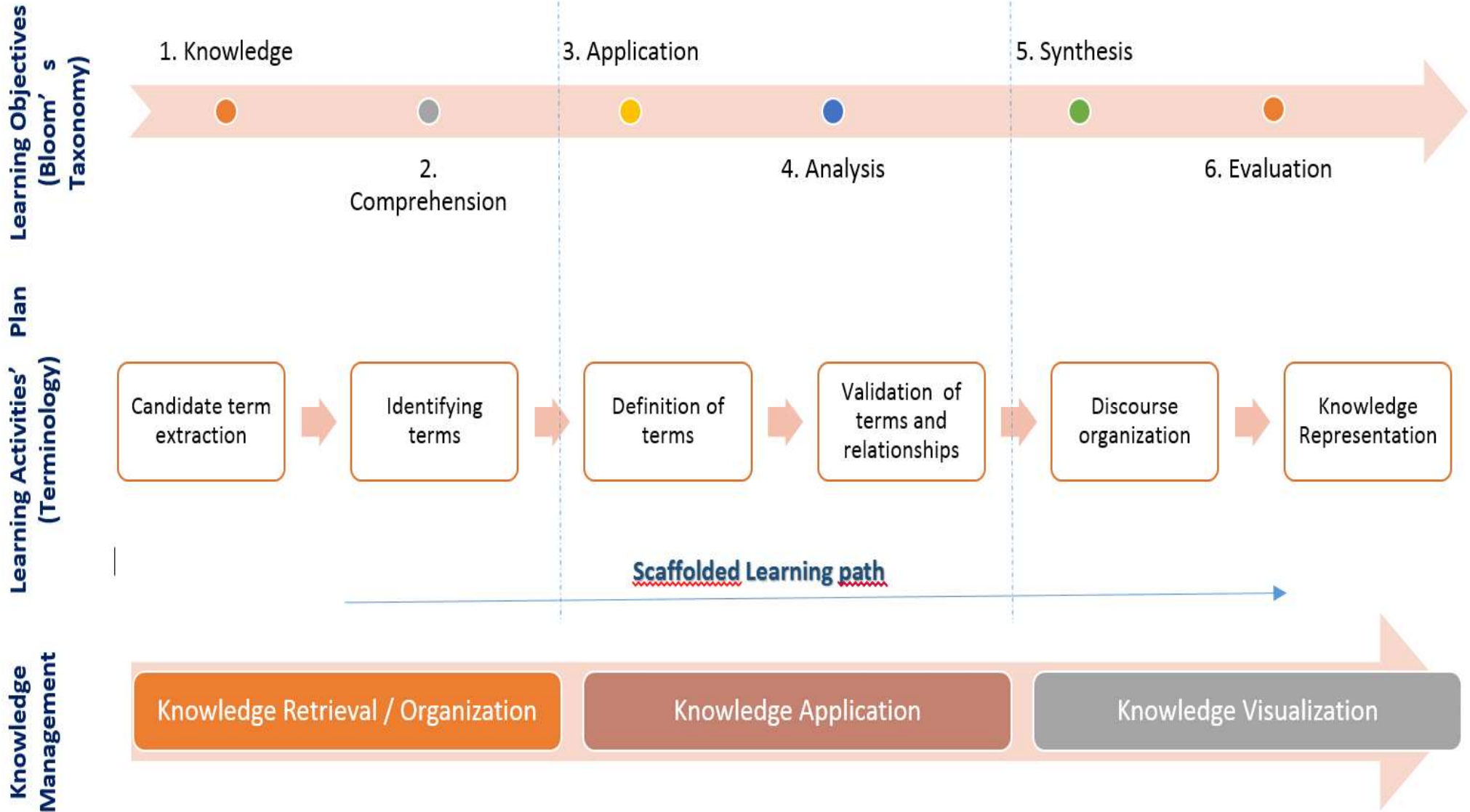
Terms are the privileged means to represent knowledge – The CLIL teacher (plays the role of the expert)

6

The fact that CLIL students are dealing with a new domain (**content**) in a foreign language increases the need to anchor this knowledge in scaffolded strategies and activities that robustly structure and represent it.

Terminology-Based Approach to CLIL

TeminoCLIL – high-level representation



HOW TO...? LEARNING ACTIVITY PLAN – STAGE 1

Knowledge Management	Knowledge Retrieval/ Organization			
Learning Objectives (Bloom's Taxonomy)	1. Knowledge		2. Comprehension	
	Recall of information, observation		Finding information from the text	
Activity Plan (Terminology)	Identifying Terms		Textual Match	
	Actions	Outcomes	Actions	Outcomes
	Identifying Terms	List of (candidate) terms	Classifying	Vocabulary exercise (match words to definitions or pictures, discover the meanings through the text)
	Finding Terms	Quis	Comparing	Explanation
	Selecting Terms		Exemplifying	List
	Extracting Terms		Infering	Quiz
	Questions?	Tools	Questions?	Tools
	What is a term?	http://taws.tilde.com/plaintext	How would you distinguish between a generic and a specific term?	Visual Thesaurus
	What is a word?	http://www.nactem.ac.uk/software/termine/	Can you establish a relation between some of the terms?	Semantic Relations List
	What is a simple term?	http://termostat.ling.umontreal.ca/	Can you describe the connection between the terms?	http://www.cires.com/semrels/umls_relation_list.html
	What is a complex term?	...	Can you identify the concept?	
	What is a phraseology?		Can you illustrate the terms/ find images?	
	What difficult words are not terms?		Can you translate the term into your mother tongue?	
	What is a concept?		Can you find synonyms/antonyms?	

SIGNS OF

The signs that may be seen in of the are summarized in Fig. 24.11. Especially significant are:

1. If the has or wears then in a it is likely that the will be altered. In the the is in a between and the . When occurs the may be separated into different , each of which may be by the actions of one alone so that the normal is . Typical examples of this are shown in Fig. 24.11.

INDIVIDUAL FACIAL FRACTURES

Mandible

	fracture	mandible
<i>Deranged Occlusion</i>		
patient teeth dentures		displaced fracture
	dental occlusion	normal
state mandible state of balance		elevator
muscles (pterygomasseteric sling)		depressor muscles
(digastrics and mylohyoids).	fracture	mandible
	segments,	displaced
	group of muscles	
balance disrupted		

Example from Marketing

Text as a starting point → terminological extraction → analysis of the term candidates

Rank	Term	Score
1	edit section 26	
2	market segmentation	12
3	market research	11
4	marketing strategy	10
5	marketing environment	7
5	marketing research	7
5	service marketing	7
5	marketing activity	7
9	close range marketing	6.33985
10	customer focus	6
10	guerrilla marketing	6
12	orientation profit	
13	primary research	5
13	media manipulation	5
13	relationship marketing	5
13	target market	5
13	marketing department	5
18	qualitative research	4
18	right-time marketing	4
18	giancarlo pallavicini	4
18	marketing management	4
18	main article 4	
18	social marketing	4
18	marketing plan	4
18	quantitative research	4
18	herd behavior	4
18	digital marketing	4

What are the terms of the domain?

Production methods
 until the 1950s
 A firm focusing on a **production orientation** specializes in producing as much as possible of a given product or service. Thus, this signifies a firm exploiting [economies of scale] [96] until the [**minimum efficient scale**] [97] is reached. A **production orientation** may be deployed when a high demand for a product or service exists, coupled with a good certainty that **consumer tastes** will not rapidly alter (similar to the **sales orientation**).

[[Product] [96]] [3] [94]
 Quality of the product
 until the 1950s
 A firm employing a **product orientation** is chiefly concerned with the quality of its own product. A firm would also assume that as long as its product was of a high standard, people would buy and consume the product.

[[Selling] [99]] [3] [94]
 Selling methods
 1950s and 1960s
 A firm using a **sales orientation** focuses primarily on the selling [promotion] [100] of a particular product, and not determining new consumer desires as such. Consequently, this entails simply selling an already existing product, and using **promotion techniques** to attain the highest sales possible.

Such an orientation may suit scenarios in which a firm holds **dead stock**, or otherwise sells a product that is in high demand, with little likelihood of changes in **consumer tastes** that would diminish demand.

[[Marketing] [3] [94]
 Needs and wants of customers
 1970s to the present day
 The **"customer orientation"** is perhaps the most **common orientation** used in **contemporary marketing**. It involves a firm essentially basing its **marketing plans** around the **marketing concept**, and thus supplying products to suit new **consumer tastes**. As an example, a firm would employ **market research** to gauge consumer desires, use R & D (research and development) to develop a product attuned to the revealed information, and then utilize **promotion techniques** to ensure persons know the product exists. R & D companies often **parallel customer orientation** with R & D phases to ensure the desired **customer specifications** are produced. **Customization Maximization** (similar to **profit maximization** in economics) is the **measurable approach** to more efficiently sustaining **specific customer needs** in effort to maximize the customization of the product or service offered to the customer, by the measure of data relating to responses, **feedback**, and elasticity.

[[Holistic] [101] Marketing] [4] [102]
 Everything matters in marketing
 21st century
 The **holistic marketing concept** looks of marketing as a **complex activity** and acknowledges that everything matters in marketing - and that a broad and integrated perspective is necessary in developing, designing and implementing **marketing programs** and activities. The four components that characterize **holistic marketing** are **relationship marketing**, **internal marketing**, **integrated marketing**, and **socially responsive marketing**. **Market segmentation** and **positioning** have increased the divergence of society, further segregating and preventing a **holistic population**. **Holistic Marketing** helps converge the segments in an approach to improve the **entire market** through **social responsibility** and convergence. **Holistic marketing** disengages the **political marketing activities** of " divide and conquer " or **market segmentation**.

##= Contemporary approaches [edit] [103]
 Recent approaches in marketing include: **relationship marketing** [104], with focus on the customer, **business marketing** [105], or **industrial marketing** [106], with focus on an organization or institution and **social marketing** [21], with focus on benefits to society [3] [107]. **New forms** of marketing also use the internet [108] and are therefore called **internet marketing** [109], or more generally **e-marketing**, **online marketing**, **digital marketing**, **search engine marketing** [110], or **desktop advertising**. It attempts to perfect the **segmentation strategy** [111] used in **traditional marketing**. It targets its audience more precisely, and is sometimes called **personalized marketing** [112] or **one-to-one marketing**. **Internet marketing** [109] is sometimes considered to be broad in scope, because it not only refers to marketing on the internet, but also includes marketing done via email, **wireless media** as well as driving audience from **traditional marketing methods** like radio and billboard to internet properties or **landing page** [113].

Orientation Profit driver | Western European Investrate Description
 [[Relationship marketing] [104]] [5] [107]
 Building and keeping good **customer relations**
 1990s to present day
 Emphasis is placed on the whole relationship between suppliers and customers. The aim is to provide the best possible **customer service** and build **customer loyalty**.

[[Business marketing] [105]] [106]] [110]]
 Building and keeping relationships between [organizations] [115]
 1990s to present day.

HOW TO...? ACTIVITY PLAN – STAGE 2

Knowledge Management	Knowledge Application			
Learning Objectives (Bloom's Taxonomy)	3. Application		4. Analysis	
	To use in a new situation		To examine in detail	
Activity Plan (Terminology)	Definition of terms		Validation of Terms and their Relationships	
	Actions	Outcomes	Actions	Outcomes
	Implement	Demonstration	Integrating	Checklist
	Execute	Texts	Analysing	Visual Conceptual Map
	Translate	Presentation	Structuring	Terminology Case File
	Using	Simulation	Organising	
	Questions?	Tools	Questions?	Tools
	How would you use this terminology to describe graphs/images/tables/charts...?	Wordnik, onelook, wordsense	Can you make a distinction between contexts/ communication levels...?	Advanced search
	Which context is the most suitable?		How would you categorize the terms?	Develop a textual corpus analysis / Concordances analysis
	Can you formulate a definition of a term?		How would you classify relationships?	http://www.webitext.com/bin/webitext.cgi
			How would you select relevant terms?	http://www.tradoo.it/
			How can you distinguish between suitable and unsuitable terms?	http://corpora.ids-mannheim.de/ccdb/
			How would you rate the correctness of the terms that designate the concept?	Webitext, C-map tools, Mind-meister

HOW TO...? ACTIVITY PLAN – STAGE 3

Knowledge Management	Knowledge Visualization		
Learning Objectives (Bloom's Taxonomy)	Synthesis		Evaluation
	To change or create into something new		To make judgments according to standards
Activity Plan (Terminology)	Discourse organization and knowledge representation		Specialized Knowledge
	Actions	Outcomes	Actions
			Outcomes
	Designing	Termbase	Solving
	Constructing	Glossary	
	Planning		
	Making		
	Questions?	Tools	Questions?
			Tools
	Which template/model would you use to build up a glossary/database?	Termbase	Based on what you know, how would you explain...? Surveys
	Which levels and fields would you include in your database/glossary?		Has terminology helped you increase your knowledge of the field of studies? Tests
	Can you propose new terms?		Do you agree with the actions/outcomes?

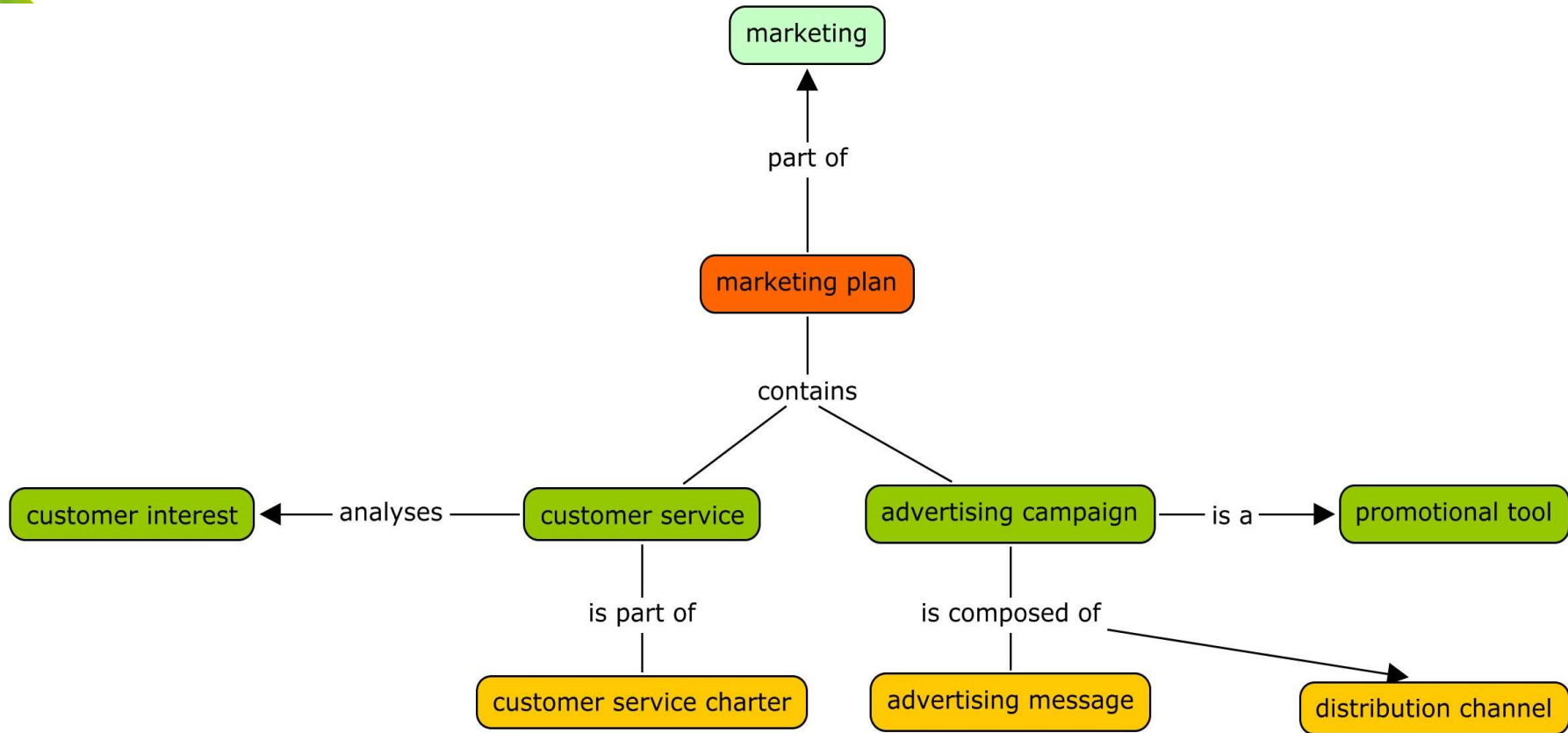
Negotiating and representing domain knowledge: Conceptualization example

CONCEPTS OF MARKETING

mission statement
staff performance
establish system
reassure customer
demand curve

customer expectation

business project
complaint procedure
careful consideration
human resource
customer benefit
selling proposition
brand image
advertising message
waiting/delivery leadtime
customer interest
marketing activity
advertising spend
practical term
business plan



1

Led to an awareness of the different communities of practice for the potential of the terminological work and (online) terminology tools

2

Enabled the introduction of new teaching/learning strategies and methodologies that had not been explored by the participants (evaluated very positively)

3

The flexibility of the proposed model allowed teachers to adapt/adequate the Learning Activity Plan to their needs and those of the students, especially:

3.1

when the interaction took place in a collaborative environment (ex.: during the negotiation and representations of knowledge in concept maps)

3.2

or when the interaction was supported by a collaborative platform

4

More *tech savvy teachers* are more willing to go ahead and change their activities to try the approach and the tools on a more continuous base

Implemented modules

CLIL in Pesticide Labels > Pesticide and Residue Analyses (João Pedro Luz/IPCB)

3D Printing and the Future of Manufacturing (Marcelo Calvete/IPCB)

Time Management (Nuno José Martins Guerra/IPCB)

Forest in a changing climate > focus on the eco-hydrological processes (Fernando Pereira/IPCB)

Events' Management > Events' Production and Evaluation (Susana Gonçalves/ESHTE)

Tourism and the Environment > Sustainability in Official Documents (Jorge Umbelino/ESHTE)

Nutrition > Carbohydrates (Cláudia Viegas/ESHTE)

Hotel Management > Hotel Mission Statements (Maria de Lurdes Calisto/ESHTE)

Civil Engineering > Introduction to Foundations (José Carlos Almeida/IPG)

Computer Science > Databases (José Carlos Fonseca/IPG)

Accounting > Financial Statements (Rute Abreu/IPG)

The Java Collections Framework through Polymorphic Algorithms (Rui Pedro Lopes/IPB)

E-Commerce & Business English (Mariana Malta, Suzana Cunha/IPPorto)

Simulation and Decision Making & Business English IV (Ana Paula Lopes, Suzana Cunha/IPPorto)

Team Work in Early Intervention (Elisabete Mendes/IPPortalegre)

CLIL in Primary Education (Teresa Coelho/IPPortalegre)

Energy and Environmental Studies (Pedro Rodrigues/IPG)

What works...

Promotes the integrated learning of specialized content and a foreign language

Teaching tools to support the various steps and levels of learning



To create a favorable context for progressing in an active manner through the learning of both content and language while co-constructing knowledge with teachers and peers

An approach that respects cognitive domains and involves ICT tools to access and use knowledge

Subject teachers may be resistant

→ they will learn to appreciate the monitoring and collaboration

Data gathering tools are the backbone for improvement

→ feedback, results, motivation...

Tech students expect to find more “humanity” in their language learning than they typically find in their IT classes

→ don't overdo the ICT for some students

As language users ALL, we level the playing field

→ more self-confidence in communication

→ more value attributed to active participation

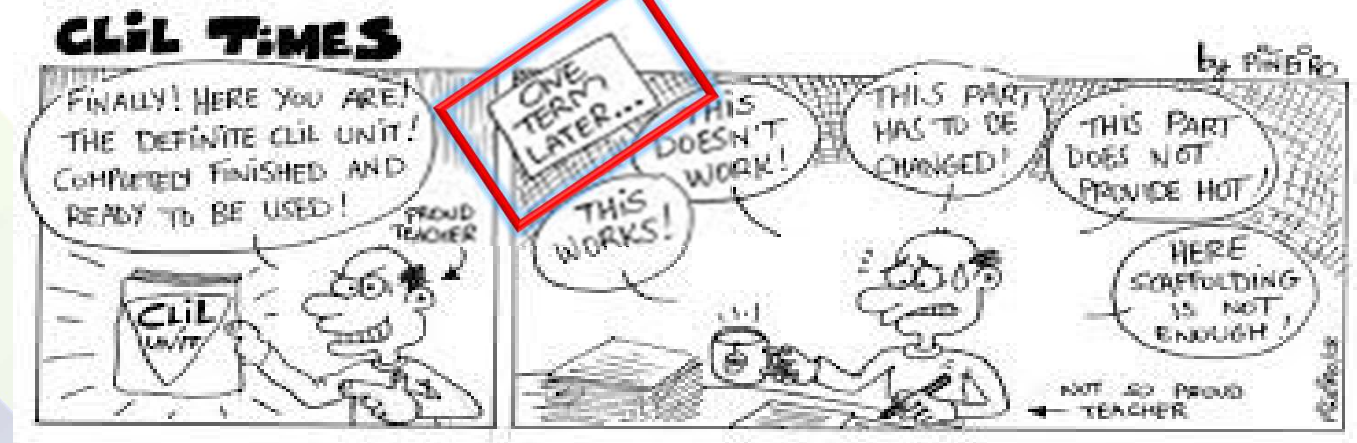
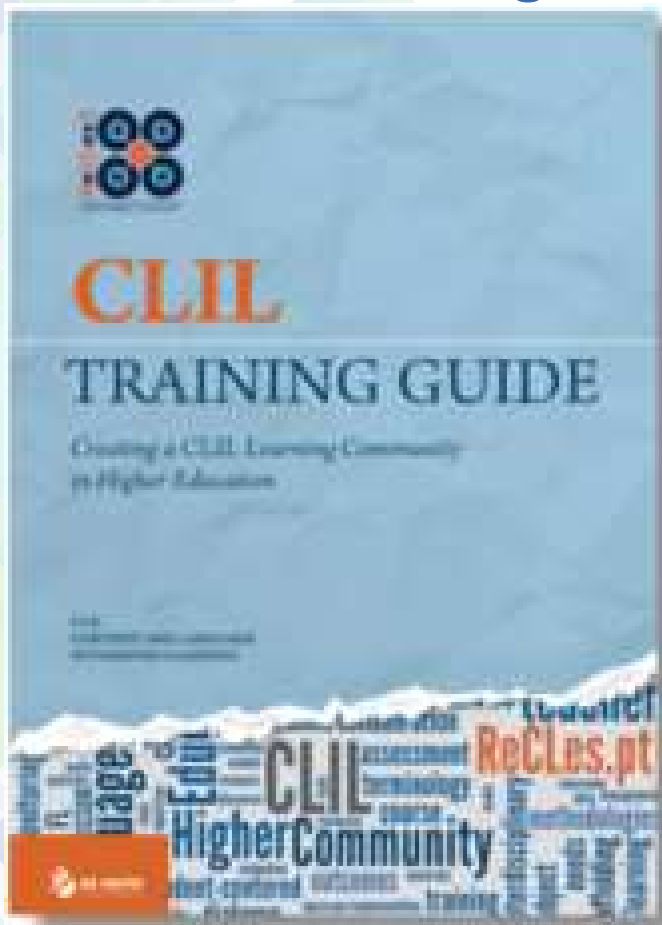
Creating and maintaining respect and expectations

→ **YOU** with **THEM** rather than you VERSUS them



CLIL Training Guide

Creating a CLIL Learning Community in Higher Education



Manuel Silva & Alexandra Albuquerque

mdasilva@iscap.ipp.pt

alexalb@iscap.ipp.pt

Thank you 😊
Any questions (simple)?

